

## ABSTRACT

## 【Summary】

【Object】 Provide an automatic musical performance device, which is capable of giving a concert magic function in an acoustic instrument with a feeling of normally playing the acoustic instrument.

【Solution】 A time period  $T_v$  between two points, and a tempo  $T_{mp}$  found based on a time intervals between two-point detection and later two-point detection, are found based on detection signals at the two points and later detection signals at the two points; and a delay time  $fD(T_v)$ , which is from reception of each operating signal by a solenoid activating circuit 20 to commencement of a musical performance of an acoustic piano by the circuit 20, and a velocity value  $f_v(T_v, T_{mp})$  are found based on functions. A time period  $T_a$ , which starts at the time of later detection  $S_1$  in two-point detection as a reference and ends when a lever 19 is inverted, is found as  $f_a(T_v)$  based on a function. Each operating signal is transmitted to the solenoid activating circuit 20 under such timing control that a transmission timing  $T_{on}$  comes at a time of lapse of " $f_a(T_v) - fD(T_v)$ " sec after the later detection; and the velocity value is set at  $f_v(T_v, T_{mp})$ .